

communicate with a computer system. Furthermore, each such  
computer program can be stored on a storage medium, such as  
read-only-memory (ROM) readable by a general or special  
purpose programmable computer, for configuring and operating  
5 the computer when the storage medium is read by the computer  
to perform the functions described above.

Other implementations are within the scope of the  
claims.

What is claimed is:

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*Sub A<sup>1</sup>*  
1. A method of performing a continuity check  
operation comprising:

sending a pattern of bits over a packet network  
connection through a first interface on a packet network to  
5 a second interface on the packet network;

monitoring the first interface for return of the  
pattern of bits over the packet network connection; and

deciding whether the continuity check is successful  
based on whether the pattern of bits is detected at the  
10 first interface during the monitoring.

2. The method of claim 1 including providing a loop  
between incoming and outgoing packet streams associated with  
the packet network connection.

3. The method of claim 1 including repeatedly sending  
the pattern of bits over the packet network connection  
during the monitoring.

4. The method of claim 1 wherein the continuity check  
is performed during a set-up process for a narrowband call  
over the packet network.

5. The method of claim 4 wherein the call set-up  
25 process includes sending Signaling System 7 messages.

6. The method of claim 1 wherein the pattern of bits sent over the packet network connection includes a first byte all of whose bits are a first value and a second byte all of whose bits are a second different value.

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7. The method of claim 1 wherein the pattern of bits includes multiple bytes each having multiple bits, wherein a single bit in each byte has a value that differs from all other bits in the byte, and wherein the bit having the different value is shifted by one position between adjacent bytes.

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8. The method of claim 1 wherein the pattern of bits includes first and second bytes each of whose bits alternate in value, and wherein the value of the second byte is the complement of the value of the first byte.

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9. The method of claim 1 wherein the continuity check is considered a failure if the pattern of bits is not detected at the first interface during monitoring within a specified period.

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10. An apparatus configured to adapt circuit-switched and packet-based bearers and configured to execute continuity check operations, the apparatus comprising a bit pattern generator and a bit pattern detector, wherein the pattern generator is arranged to generate a pattern of bits

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to be sent over a packet network connection, and the bit pattern detector is arranged to monitor return of the pattern of bits over the packet network connection, wherein the apparatus is configured to decide whether a continuity check is successful based on whether the generated pattern of bits is detected by the bit pattern detector.

11. The apparatus of claim 10 wherein the bit pattern generator is arranged to send the pattern of bits repeatedly over the packet network connection.

12. The apparatus of claim 10 configured to perform the continuity check during a set-up process for a narrowband call over the packet network connection.

13. A communications system comprising:

a packet network; and

a first gateway coupled to a first interface on the packet network and configured to execute continuity check operations, wherein the gateway includes a bit pattern generator and a bit pattern detector, wherein the pattern generator is arranged to generate a pattern of bits to be sent over a connection in the packet network, and the bit pattern detector is arranged to monitor return of the pattern of bits over the packet network connection, wherein the gateway is further configured to decide whether a continuity check is successful based on whether the

generated pattern of bits is detected by the bit pattern detector.

14. The system of claim 13 including a second gateway  
5 coupled to a second interface on the packet network and  
configured to provide a loop between incoming and outgoing  
packet streams associated with the packet network  
connection.

10 15. The system of claim 13 wherein the bit pattern  
generator is arranged to send the pattern of bits repeatedly  
over the packet network connection.

15 16. The system of claim 13 wherein the gateway is  
configured to perform the continuity check during a set-up  
process for a narrowband call over the packet network  
connection.

20 17. An article comprising a computer-readable storage  
medium including computer-executable instructions for  
causing a computer system to:

send a pattern of bits over a packet network connection  
through a first interface on a packet network to a second  
interface on the packet network;

25 monitor the first interface for return of the pattern  
of bits over the packet network connection; and

decide whether a continuity check is successful based on whether the pattern of bits is detected at the first interface during the monitoring.

5        18. The article of claim 17 including instructions for causing the computer system to:

provide a loop between incoming and outgoing packet streams associated with the packet network connection.

10       19. The article of claim 17 including instructions for causing the computer system to:

repeatedly send the pattern of bits over the packet network connection during the monitoring.

15       20. The article of claim 17 including instructions for causing the computer system to perform the continuity check during a set-up process for a narrowband call over a packet network.